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## Claims

1. Method for preparing a CO<sub>2</sub>-rich gas stream for injection purposes or deposition, and a hydrogen rich gas stream,  
characterized in that the method comprises the following steps:
- natural gas and H<sub>2</sub>O are fed into to a one-step reforming process for preparing a gas mixture comprising CO<sub>2</sub> and H<sub>2</sub> under supercritical conditons for water;
  - the gas mixture from a) is separated into a H<sub>2</sub>-rich and a CO<sub>2</sub>-rich gas stream, respectively.
2. Method according to claim 1,  
characterized in that the temperature in the reforming reactor is from about 400°C to about 600°C.
3. Method according to claims 1-2,  
characterized in that the pressure in the reforming reactor is from about 200 to about 500 bar.
4. Method according to claims 1-3,  
characterized in that the CO<sub>2</sub>-rich gas stream is present at a pressure within the interval from 20 to 200 bar.
5. Method according to claims 1-4,  
characterized in that the mixture in the reforming reactor is passed over a catalyst bed.
6. Method according to claims 1-5,  
characterized in that th reaction in the reforming reactor is carried out without a catalyst.
7. Use of a CO<sub>2</sub>-rich gas stream according to claim 1 for injection into marine formations.

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8. Use of a H<sub>2</sub>-rich gas stream made according to claim 1 for hydrogenation.

9. Use of a H<sub>2</sub>-rich gas stream made according to claim 1 as a source of energy / fuel in fuel cells.

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10. Use of a H<sub>2</sub>-rich gas stream made according to claim 1 for production of electricity.

add B<sup>1</sup>

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